

REMARKS/ARGUMENTS

Claims 1, 2 and 6-10 are pending in the present application. Claims 1 and 2 have been amended to more clearly recite the invention. Claim 7 is canceled without prejudice or disclaimer due to the amendment to claim 1. Furthermore, the dependency of claim 8 has been changed from claim 7 to claim 1 due to the cancellation of claim 7. As indicated below, the amendments to the claims are all believed to be entirely supported by the application as originally filed and thus, there is no issue of new matter. For the reasons which follow, this Amendment is believed to overcome all of the presently pending grounds of objection/rejection of applicant's claims. Upon entry of this Amendment, claims 1-2, 6 and 8-10, as amended, will be pending in the application.

Applicant appreciates the courtesies extended by the Examiner to his representative, Mark A. Farley, Esq. (Reg. No. 33,170) during a telephonic interview with the Examiner held on March 6, 2007. During the interview, the prior art cited by the Examiner was discussed, as well as several proposals for amending the claims in order to further distinguish the invention over such art. The claim amendments and remarks presented herein are substantially in accordance with the matters raised on behalf of applicant by his representative during the interview.

Rejections Under 35 U.S.C. §112

Claims 1-2 and 6-10 are rejected under 35 U.S.C. §112, second paragraph, for the reasons given on p. 2 of the Office Action. This rejection is respectfully traversed.

The Office Action alleges that the phrase "close packed array" (see, e.g., claim 1) is not defined with reasonable specificity anywhere in the specification and, thus, the Examiner argues that the inclusion of the phrase in the claims renders the claims indefinite. Additionally, the Examiner notes that the language in claim 2, i.e., "until they become closely packed" does not match that found in claim 1, i.e., "until they form a close packed array".

Turning first to the rejection of claim 2, applicant has amended the subject claim such that the language therein now corresponds to the language found in claim 1. No new matter is added by this amendment. The amendment to the subject claim is believed to overcome the grounds of rejection under 35 U.S.C. §112, which should, therefore, be withdrawn.

As to the use of the term “close packed array” in, e.g., claim 1, applicant submits that one having ordinary skill in this field of art would immediately recognize what is being conveyed by the subject phrase. More particularly, as explained further below in the discussion of the Examiner’s 102(b)/103(a) rejections, a requirement for having such a ‘close packed array’ is that the micro spheres are packed sufficiently closely together such that the total void volume of such spheres is greater than the total of the interstitial volume, i.e., of the spaces located ‘between’ the spheres, within the foam produced according to the invention. A description of this feature has, in fact, been added by amendment to claim 1. The close packed array arrangement is, moreover, depicted in the Figures provided with the application. The Examiner is therefore respectfully requested to consider the claim amendments and comments provided herein and to withdraw the claim rejections under 35 U.S.C. §112 directed to applicant’s use of the phrase, “close packed array”.

Rejections Under 35 U.S.C. §102/103

Claims 1, 2 and 6-10 are rejected under 35 U.S.C. §102(b) as anticipated by or, in the alternative, under 35 U.S.C. §103(a) as obvious over Australian patent application No. 200151857 to De Toffol (“AU De Toffol”) or under 35 U.S.C. §102 (a and e) as anticipated by or, in the alternative, under 35 U.S.C. §103(a) over its U.S. corresponding patent No. 6,476,087 to De Toffol (“US De Toffol”) for the reasons set forth at pps. 3-4 of the Office Action. These grounds for rejection are respectfully traversed.

The references cited to reject the claims, and particularly the manner in which the present invention is distinguishable over the cited references, has been extensively discussed by applicant in the prior responses mailed to the Patent Office on November 28, 2005 and August 18, 2006, respectively. Those comments are specifically incorporated by reference into this response. Applicant recognizes, moreover, that the Examiner has addressed at least some of the prior arguments in her “Response to Arguments” on pp. 4-8 of the Office Action. However, applicant’s representative respectfully submits that the additional claim amendments and remarks provided herein, which are in accordance with those discussed during the March 6, 2007 telephone interview, are believed to be sufficient to overcome the Examiner’s objection(s) (as described in the Office Action) to allowing the claims. Thus, the Examiner is respectfully requested to reconsider and withdraw all of the pending 102/103 rejections of the subject claims.

In order to further distinguish the invention from the cited references, claim 1 has been amended (as discussed during the interview) to recite, *inter alia*, (1) that the mold defines an opening within a lower portion thereof; and (2) that the excess liquid phase binder beneath the close packed array flows from the mold through the above-described opening defined in the subject mold. Support for these amendments is found in “opening 6” which is illustrated in Fig. 1(d) provided with the application and which is discussed at p. 3, line 28 of the present specification. Thus, as noted above, there is no issue of new matter. As indicated, for example, in applicant’s Amendment dated November 28, 2005, the subject De Toffol references describe the use of a porous wick to absorb excess liquid phase binder. Notwithstanding the various disagreements between the applicant and the Examiner concerning the terms, “flow”, “drain” and the like contained in the previous communications concerning this case, applicant now definitively submits that **neither** of the cited references contain any teaching, or even a suggestion, that one could, or even should, provide the mold(s) described therein with an opening in a lower portion thereof to permit excess liquid phase binder to away from the close packed array of microspheres and out of the mold. Applicant, therefore, respectfully submits that the present invention is believed to distinguish over the cited references for at least this reason alone.

However, further to the above, applicant’s representative pointed out to the Examiner during the March 6th interview another substantial difference between the claimed invention and the prior art. It was noted to the Examiner that the De Toffol references **teach away** from the invention due to its/their teach[ing] that the interstitial void volume should be greater than the void volume of the microspheres (see, for example, the U.S. ‘087 De Toffol patent at col. 3, lines 38-43 and 48-54). In contrast to the arrangement described by the Patentee, claim 1 has been further amended to recite that, “a total void volume of said microspheres is greater than a total interstitial void volume defined by spaces between the microspheres.” As support for the amendment, it is noted that the present specification teaches that, “the micro-spheres become close packed in a density approaching the natural micro sphere bulk density” (p. 2, lines 6-7) and “the foam density closely approaches the bulk density of the micro-spheres which are the lower limit of the achievable foam density.” (p. 4, lines 22-23). Perhaps even more clearly, the specification teaches at p. 5, lines 8-9 that the syntactic foam density can be lowered down to 0.08, which is very close to its micro-sphere bulk density. Applicant thus respectfully submits

that, from the above disclosure, one having ordinary skill in this art would readily understand that in the invention the void volume of the micro-spheres is greater than the interstitial void volume. Since the arrangement claimed for applicant's invention is the direct opposite of that taught in the De Toffol references, the references teach away from and thus, do not suggest the invention as presently recited in the amended claims. The Examiner is, therefore, respectfully requested to reconsider and withdraw the claim rejections based on §§102 & 103.

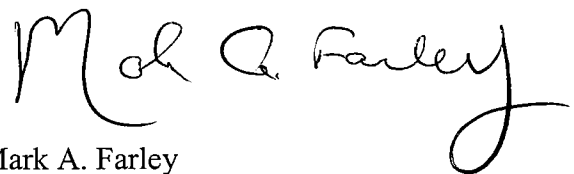
Summary

For the reasons above, the claims as amended are believed to distinguish the invention over all of the prior art cited in the Office Action and the Examiner is, thus, respectfully requested to reconsider and withdraw all of the claim rejections in order that this application may proceed to an allowance.

If the Examiner believes that there are any remaining obstacles to issuing a Notice of Allowance regarding this case and that a further interview would advance its progress, she is respectfully invited to telephone applicant's representative at the number below in order that a follow-up interview concerning this matter may be scheduled.

THIS CORRESPONDENCE IS BEING
SUBMITTED ELECTRONICALLY
THROUGH THE PATENT AND
TRADEMARK OFFICE EFS
FILING SYSTEM ON
April 13, 2007

Respectfully submitted,



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